THERE IS CLAIMED:

1. A fire-resistant and water-resistant low-voltage electrical cable including a conductor and a first internal layer to protect it against water based on a polymer compound containing no halogen, crosslinked or not, and a second layer consisting of a blend of a crystalline propylene homopolymer or copolymer and of a copolymer of ethylene and at least one α-olefin, optionally with a diene, and of an agent having fire retardant properties, the ratio of the thicknesses of the outer layer and the internal layer being from 1 to 7.

2. The cable claimed in claim 1 wherein the thickness of said internal layer is from 0.05 to 1 mm.

3. The cable claimed in claim 1 wherein the thickness of said outer layer is from 0.25 to 2 mm.

4. The cable claimed in claim 1 wherein said inner layer is made from polyolefins, copolymers of an olefin with ethylenically unsaturated esters, polyesters, polyethers, polyether/polyester copolymers and blends thereof.

5. The cable claimed in claim 4 wherein said polymers are chosen from polyethylene, polypropylene, thermoplastic propylene-ethylene copolymers, ethylene-propylene or ethylene-propylene-diene rubbers, natural rubbers, butyl rubbers, ethylene/vinyl acrylate, ethylene/ethyl acrylate, ethylene/butyl acrylate copolymers, ethylene/α-olefin copolymers and blends thereof.

6. The cable claimed in claim 1 wherein said outer layer includes as crystalline propylene homopolymers or copolymers polymers having an enthalpy of melting greater than 75 J/g and preferably greater than 85 J/g.

7. The cable claimed in claim 1 wherein the second copolymer in said outer layer is a copolymer with a narrow molecular weight distribution and having a

molecular weight distribution index less than 5 as determined by gel permeation chromatography.

8. The cable claimed in claim 1 wherein said α-olefin is chosen from propylene, 1-butene, 1-pentene, 4-methyl-1-pentene, 1-hexene, 1-octene, 1-dodecene.

9. The cable claimed in claim 7 wherein said diene is chosen from linear conjugated or unconjugated diolefins and in particular 1,3-butadiene, 1,4-hexadiene, 1,6-octadiene, monocyclic or polycyclic dienes.

10. The cable claimed in claim 1 wherein said agent having fire retardant properties is a magnesium and/or aluminum hydroxide.

11. The cable claimed in claim 10 wherein said magnesium hydroxide is present in said outer layer in proportions from 10 to 90 wt%.

12. The cable claimed in claim 10 wherein said magnesium hydroxide is used with coupling agents to improve the interaction between said magnesium hydroxide and said olefin polymers.

13. The cable claimed in claim 12 wherein said coupling agents are chosen from unsaturated silanes, ethylenically unsaturated epoxides, ethylenically unsaturated monocarboxylic or dicarboxylic acids, their anhydrides and esters.

14. A method of manufacturing a fire-resistant and water-resistant low-voltage electrical cable including a conductor and a first internal layer to protect it against water based on a polymer compound containing no halogen, crosslinked or not, and a second layer consisting of a blend of a crystalline propylene homopolymer or copolymer and of a copolymer of ethylene and at least one α-olefin, optionally with a diene, and of an agent having fire retardant properties, the ratio of the thicknesses of the outer layer and the internal layer being from 1 to 7.

15. The method claimed in claim 14 wherein the thickness of said internal layer is from 0.05 to 1 mm.

16. The method claimed in claim 14 wherein the thickness of said outer layer is from 0.25 to 2 mm.

17. The method claimed in claim 14 wherein said inner layer is made from polyolefins, copolymers of an olefin with ethylenically unsaturated esters, polyesters, polyethers, polyether/polyester copolymers and blends thereof.

18. The method claimed in claim 17 wherein said polymers are chosen from polyethylene, polypropylene, thermoplastic propylene-ethylene copolymers, ethylene-propylene or ethylene-propylene-diene rubbers, natural rubbers, butyl rubbers, ethylene/vinyl acrylate, ethylene/ethyl acrylate, ethylene/butyl acrylate copolymers, ethylene/α-olefin copolymers and blends thereof.

19. The method claimed in claim 14 wherein said outer layer includes as crystalline propylene homopolymers or copolymers polymers having an enthalpy of melting greater than 75 J/g and preferably greater than 85 J/g.

20. The method claimed in claim 14 wherein the second copolymer in said outer layer is a copolymer with a narrow molecular weight distribution and having a molecular weight distribution index less than 5 as determined by gel permeation chromatography.

21. The method claimed in claim 14 wherein said α-olefin is chosen from propylene, 1-butene, 1-pentene, 4-methyl-1-pentene, 1-hexene, 1-octene, 1-dodecene.

22. The method claimed in claim 20 wherein said diene is chosen from linear conjugated or unconjugated diolefins and in particular 1,3-butadiene, 1,4-hexadiene, 1,6-octadiene, monocyclic or polycyclic dienes.

23. The method claimed in claim 14 wherein said

agent having fire retardant properties is a magnesium and/or aluminum hydroxide.

24. The method claimed in claim 23 wherein said magnesium hydroxide is present in said outer layer in proportions from 10 to 90 wt%.

25. The method claimed in claim 23 wherein said magnesium hydroxide is used with coupling agents to improve the interaction between said magnesium hydroxide and said olefin polymers.

26. The method claimed in claim 25 wherein said coupling agents are chosen from unsaturated silanes, ethylenically unsaturated epoxides, ethylenically unsaturated monocarboxylic or dicarboxylic acids, their anhydrides and esters.

27. Use in wet environments of a fire-resistant and water-resistant low-voltage electrical cable including a conductor and a first internal layer to protect it against water based on a polymer compound containing no halogen, crosslinked or not, and a second layer consisting of a blend of a crystalline propylene homopolymer or copolymer and of a copolymer of ethylene and at least one α-olefin, optionally with a diene, and of an agent having fire retardant properties, the ratio of the thicknesses of the outer layer and the internal layer being from 1 to 7.

28. The use claimed in claim 27 wherein the thickness of said internal layer is from 0.05 to 1 mm.

29. The use claimed in claim 27 wherein the thickness of said outer layer is from 0.25 to 2 mm.

30. The use claimed in claim 27 wherein said inner layer is made from polyolefins, copolymers of an olefin with ethylenically unsaturated esters, polyesters, polyethers, polyether/polyester copolymers and blends thereof.

31. The use claimed in claim 30 wherein said

polymers are chosen from polyethylene, polypropylene, thermoplastic propylene-ethylene copolymers, ethylene-propylene or ethylene-propylene-diene rubbers, natural rubbers, butyl rubbers, ethylene/vinyl acrylate, ethylene/ethyl acrylate, ethylene/butyl acrylate copolymers, ethylene/α-olefin copolymers and blends thereof.

32. The use claimed in claim 27 wherein said outer layer includes as crystalline propylene homopolymers or copolymers polymers having an enthalpy of melting greater than 75 J/g and preferably greater than 85 J/g.

33. The use claimed in claim 27 wherein the second copolymer in said outer layer is a copolymer with a narrow molecular weight distribution and having a molecular weight distribution index less than 5 as determined by gel permeation chromatography.

34. The use claimed in claim 27 wherein said α-olefin is chosen from propylene, 1-butene, 1-pentene, 4-methyl-1-pentene, 1-hexene, 1-octene, 1-dodecene.

35. The use claimed in claim 33 wherein said diene is chosen from linear conjugated or unconjugated diolefins and in particular 1,3-butadiene, 1,4-hexadiene, 1,6-octadiene, monocyclic or polycyclic dienes.

36. The use claimed in claim 27 wherein said agent having fire retardant properties is a magnesium and/or aluminum hydroxide.

37. The use claimed in claim 36 wherein said magnesium hydroxide is present in said outer layer in proportions from 10 to 90 wt%.

38. The use claimed in claim 36 wherein said magnesium hydroxide is used with coupling agents to improve the interaction between said magnesium hydroxide and said olefin polymers.

39. The use claimed in claim 38 wherein said coupling agents are chosen from unsaturated silanes,

ethylenically unsaturated epoxides, ethylenically unsaturated monocarboxylic or dicarboxylic acids, their anhydrides and esters.

40. Use in premises with special safety conditions in the event of fire of a fire-resistant and water-resistant low-voltage electrical cable including a conductor and a first internal layer to protect it against water based on a polymer compound containing no halogen, crosslinked or not, and a second layer consisting of a blend of a crystalline propylene homopolymer or copolymer and of a copolymer of ethylene and at least one α-olefin, optionally with a diene, and of an agent having fire retardant properties, the ratio of the thicknesses of the outer layer and the internal layer being from 1 to 7.

41. The use claimed in claim 40 wherein the thickness of said internal layer is from 0.05 to 1 mm.

42. The use claimed in claim 40 wherein the thickness of said outer layer is from 0.25 to 2 mm.

43. The use claimed in claim 40 wherein said inner layer is made from polyolefins, copolymers of an olefin with ethylenically unsaturated esters, polyesters, polyethers, polyether/polyester copolymers and blends thereof.

44. The use claimed in claim 43 wherein said polymers are chosen from polyethylene, polypropylene, thermoplastic propylene-ethylene copolymers, ethylene-propylene or ethylene-propylene-diene rubbers, natural rubbers, butyl rubbers, ethylene/vinyl acrylate, ethylene/ethyl acrylate, ethylene/butyl acrylate copolymers, ethylene/α-olefin copolymers and blends thereof.

45. The use claimed in claim 40 wherein said outer layer includes as crystalline propylene homopolymers or copolymers polymers having an enthalpy of melting greater

than 75 J/g and preferably greater than 85 J/g.

46. The use claimed in claim 40 wherein the second copolymer in said outer layer is a copolymer with a narrow molecular weight distribution and having a molecular weight distribution index less than 5 as determined by gel permeation chromatography.

47. The use claimed in claim 40 wherein said α-olefin is chosen from propylene, 1-butene, 1-pentene, 4-methyl-1-pentene, 1-hexene, 1-octene, 1-dodecene.

48. The use claimed in claim 46 wherein said diene is chosen from linear conjugated or unconjugated diolefins and in particular 1,3-butadiene, 1,4-hexadiene, 1,6-octadiene, monocyclic or polycyclic dienes.

49. The use claimed in claim 40 wherein said agent having fire retardant properties is a magnesium and/or aluminum hydroxide.

50. The use claimed in claim 49 wherein said magnesium hydroxide is present in said outer layer in proportions from 10 to 90 wt%.

51. The use claimed in claim 49 wherein said magnesium hydroxide is used with coupling agents to improve the interaction between said magnesium hydroxide and said olefin polymers.

52. The use claimed in claim 51 wherein said coupling agents are chosen from unsaturated silanes, ethylenically unsaturated epoxides, ethylenically unsaturated monocarboxylic or dicarboxylic acids, their anhydrides and esters.